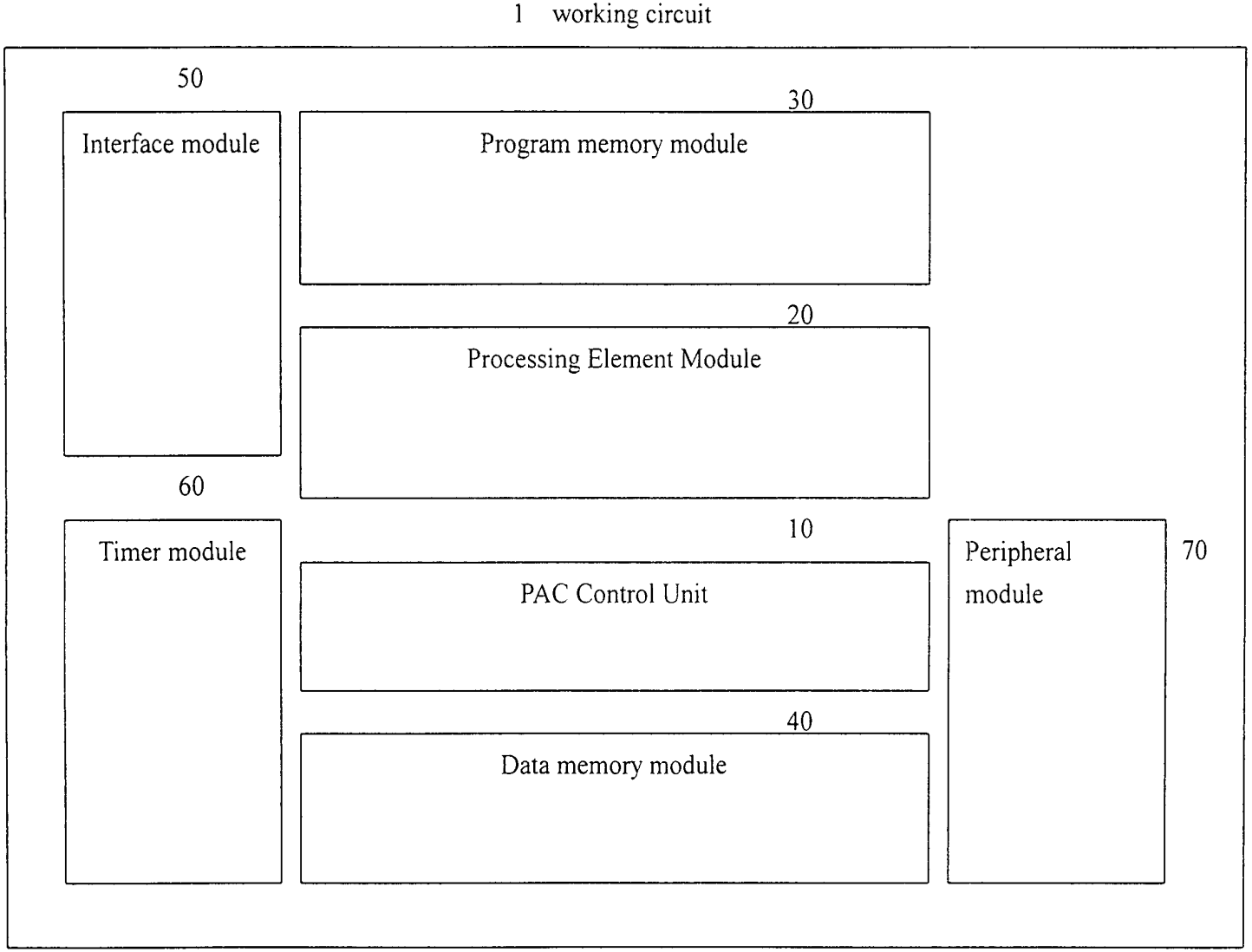
1 working circuit
50
Interface module
30
Program memory module
20
Processing Element Module
60
Timer module
10
PAC Control Unit
40
Data memory module
Peripheral module
70

Fig. 1

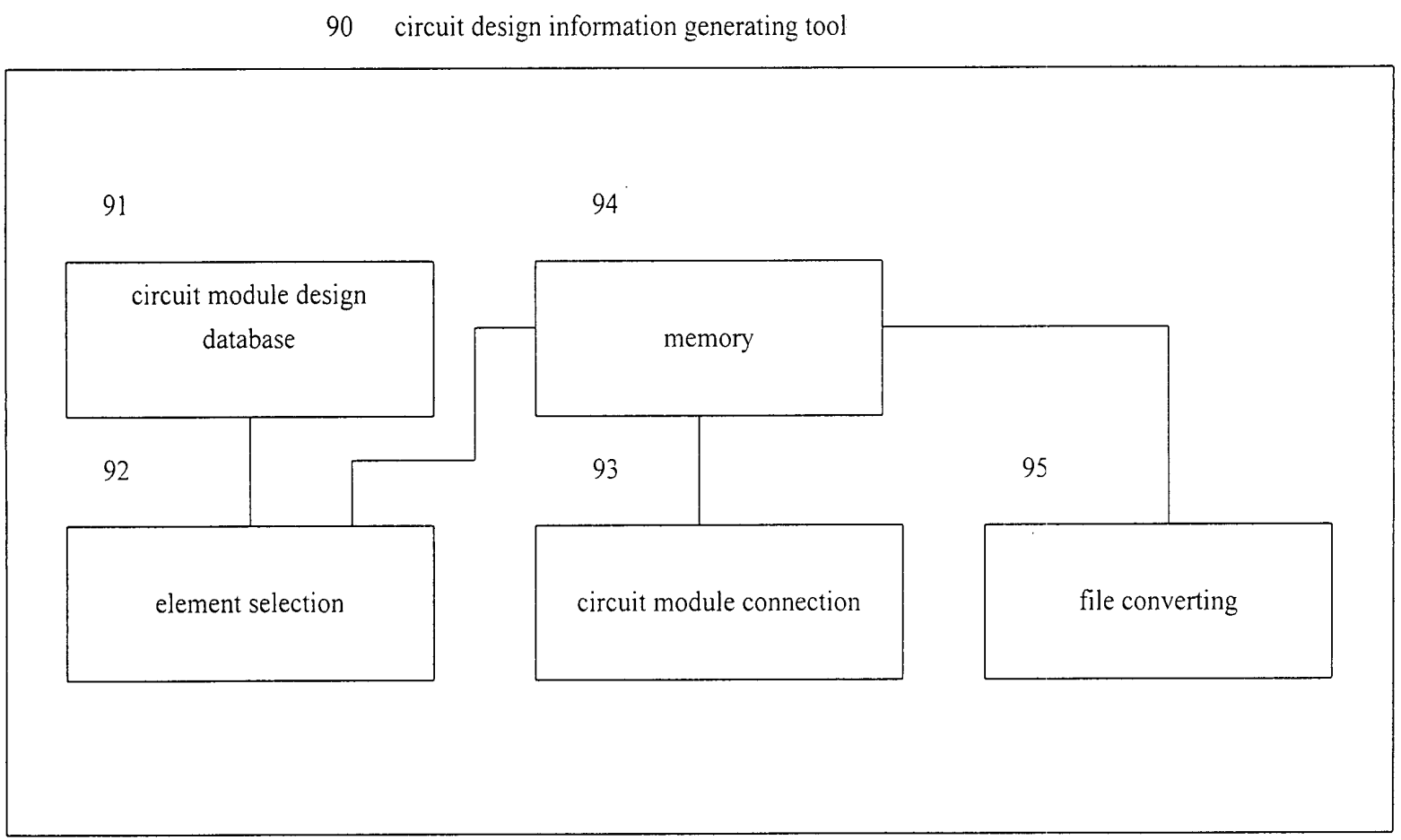
90 circuit design information generating tool
91
94
circuit module design database
memory
92
93
95
element selection
circuit module connection
file converting

Fig. 2

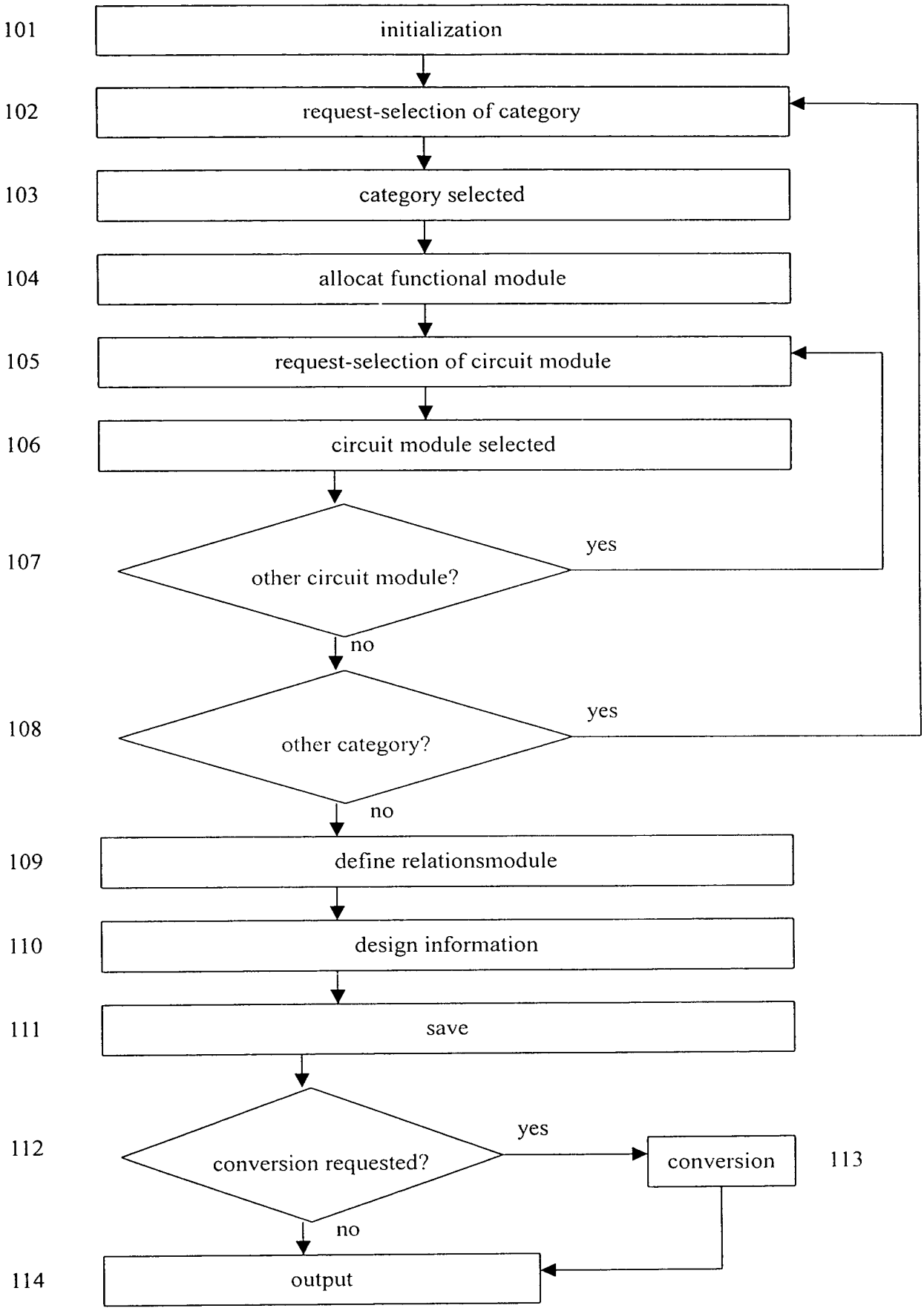
101
initialization
102
request-selection of category
103
category selected
104
allocat functional module
105
request-selection of circuit module
106
circuit module selected
107
other circuit module?
yes
no
108
other category?
yes
no
109
define relationsmodule
110
design information
111
save
112
conversion requested?
yes
conversion
113
no
114
output

Fig. 3

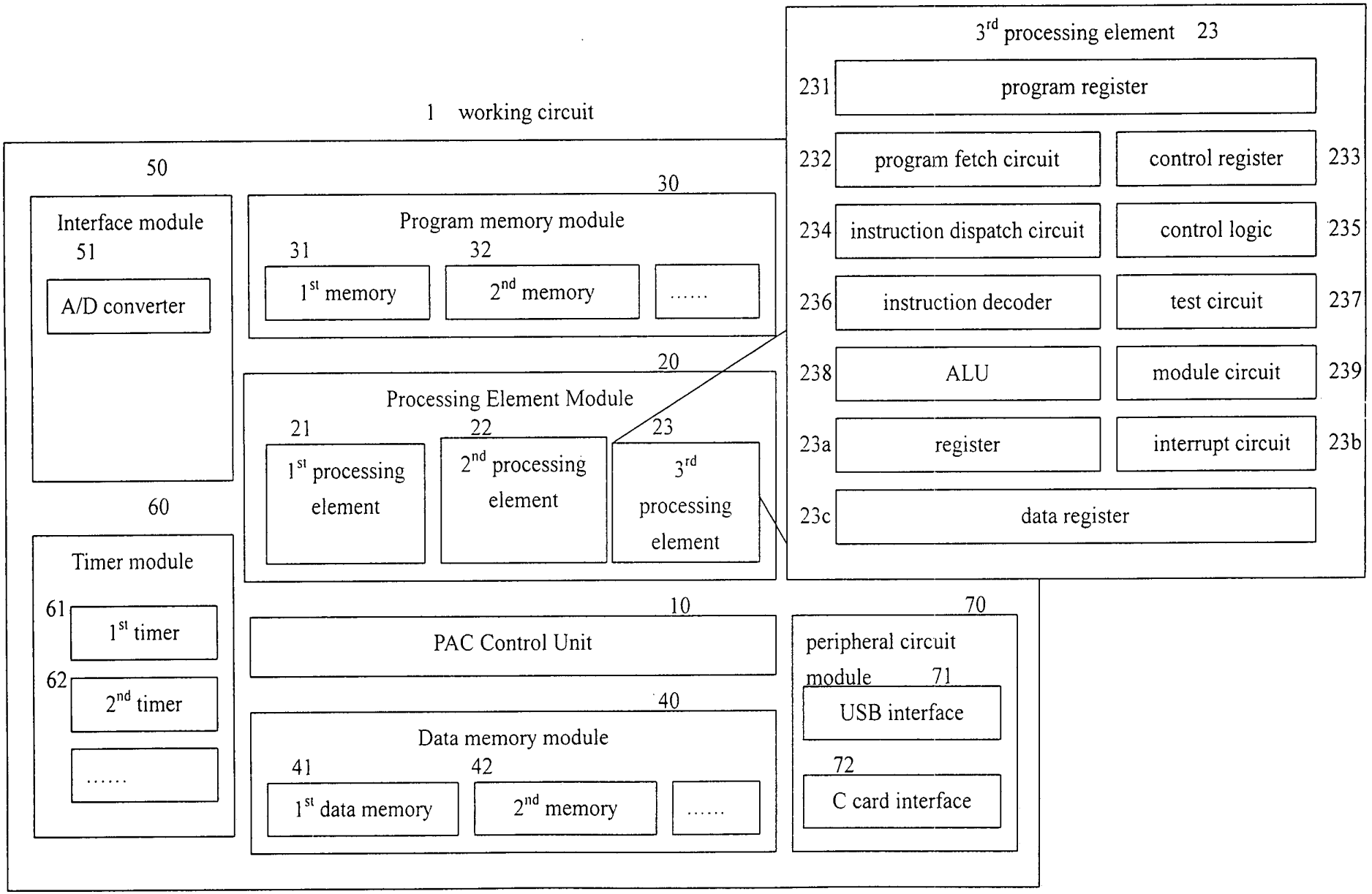
1 working circuit
50
Interface module
51
A/D converter
30
Program memory module
31
1st memory
32
2nd memory
.....
20
Processing Element Module
21
1st processing element
22
2nd processing element
23
3rd processing element
60
Timer module
61
1st timer
62
2nd timer
.....
10
PAC Control Unit
40
Data memory module
41
1st data memory
42
2nd memory
.....
70
peripheral circuit module
71
USB interface
72
C card interface
3rd processing element 23
231
program register
232
program fetch circuit
control register
233
234
instruction dispatch circuit
control logic
235
236
instruction decoder
test circuit
237
238
ALU
module circuit
239
23a
register
interrupt circuit
23b
23c
data register

Fig. 4

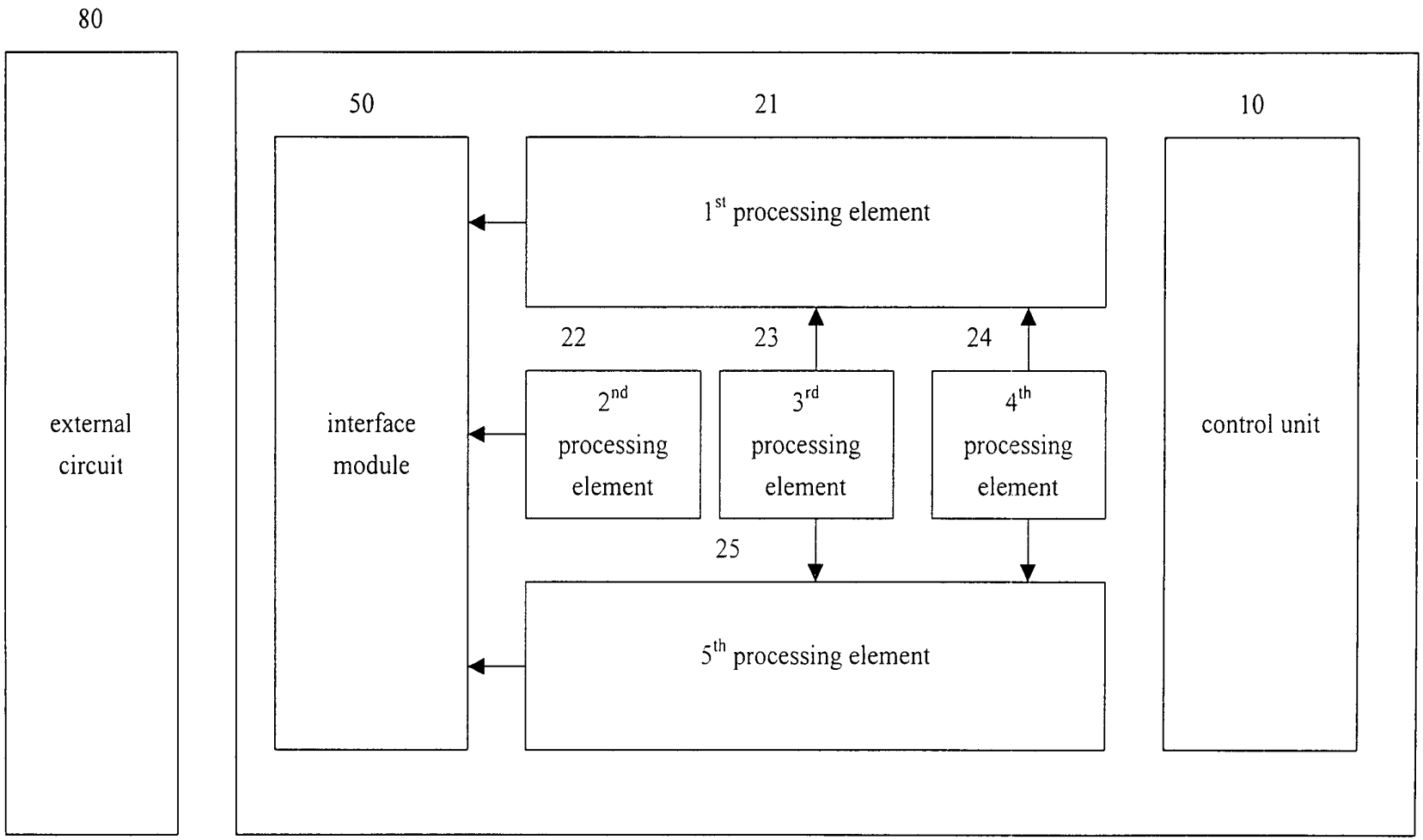
80
external circuit
50
21
10
interface module
1st processing element
22
23
24
2nd processing element
3rd processing element
4th processing element
control unit
25
5th processing element

Fig. 5

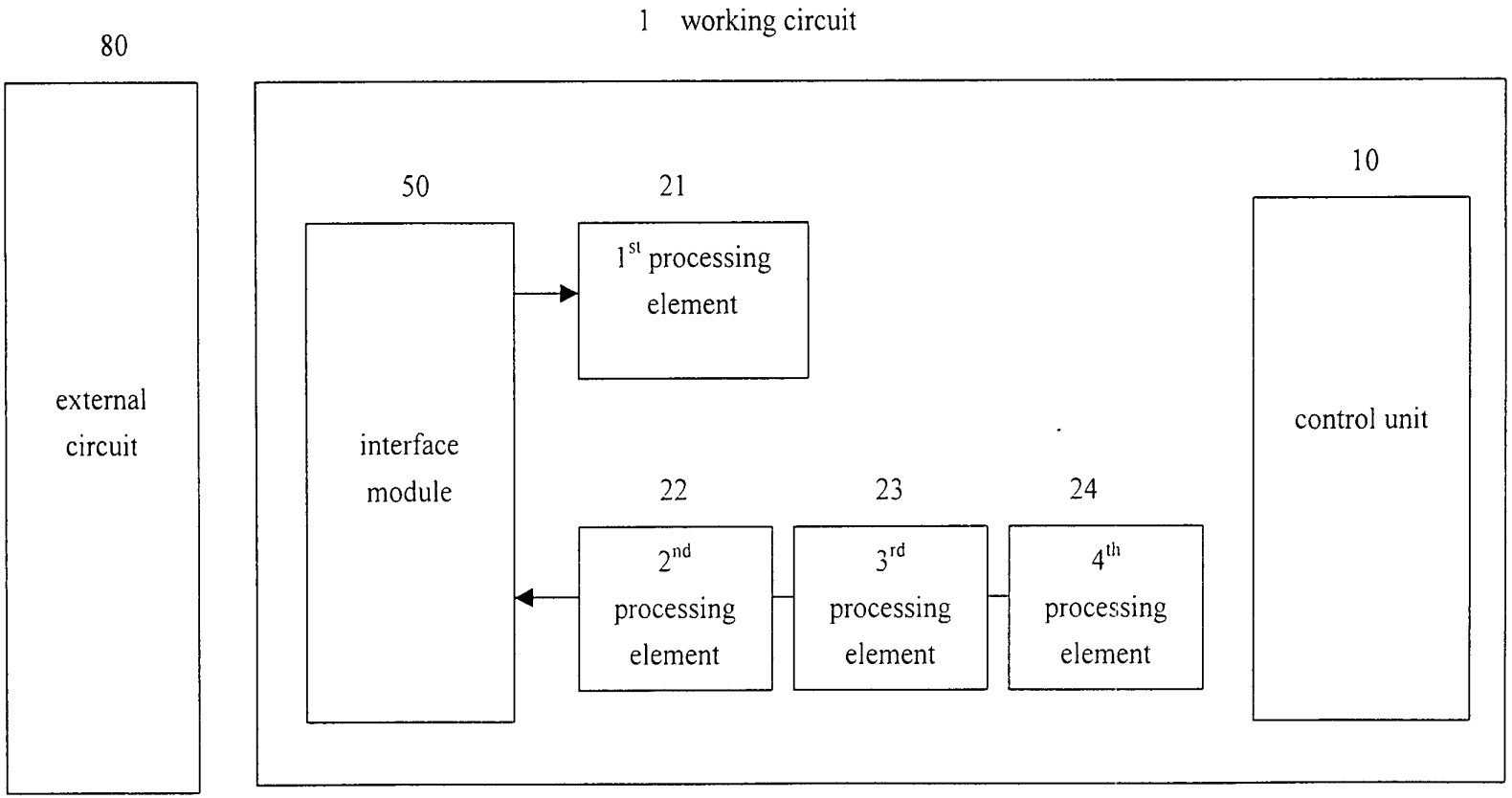
80
1 working circuit
external circuit
50
interface module
21
1st processing element
22
2nd processing element
23
3rd processing element
24
4th processing element
10
control unit

Fig. 6

Applications	Processing Element	Interface Module	Peripheral Circuit Module
WLAN	Equalizer	6, 9, 11, 12, 15, ...54 Mbps	5GHz RF Module
802.11A	Guard Interval Processor	SIF	
	FFT/IFFT(OFDM)	D/A	
	Codec	A/D	

Fig. 7